DOCUMENT RESUME

ED 432 446 SE 062 035

TITLE	Slime, Scales & Mudpuppy Tails.
INSTITUTION	Illinois State Dept. of Natural Resources, Springfield. Office of Land Management and Education.
PUB DATE	1998-00-00
NOTE	25p.
PUB TYPE	Guides - Non-Classroom (055) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Animals; Elementary Education; *Habitats; Hands on Science; Reproduction (Biology); Science Education; *Scientific Concepts; Wildlife; *Zoology
IDENTIFIERS	*Amphibians; *Reptiles

ABSTRACT

This booklet describes several different species of amphibians and reptiles. It lists the scientific and common names for the species of amphibians and reptiles and features a series of questions that differentiate one species from the other. Information about identifying characteristics, natural habitats, habits, and reproduction information is also provided. Organisms discussed include: (1) Salamander; (2) Eastern Tiger Salamander; (3) Mudpuppy; (4) Small-Mouthed Salamander; (5) Frogs and Toads; (6) Blanchard's Cricket Frog; (7) Bullfrog; (8) American Toad; (10) Snakes; (11) Eastern Hognose Snake; (12) Midland Brown Snake; (13) Black Rat Snake; (14) Lizards; (15) Northern Fence Lizard; (16) Western Slender Glass Lizard; (17) Five-Lined Skink; (18) Turtles; (20) Common Snapping Turtle; (21) Stinkpot; and (22) Eastern Spiny Softshell. A list of vocabulary words is included. (CCM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 432 446

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

K. Andrews

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

SLIME, SCALES & MUDPUPPY TAILS

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Office of Land Management and Education
Division of Education

BEST COPY AVAILABLE

WHAT IS A SCIENTIFIC NAME?

Common names for organisms are often confusing because anyone can make them up, and they may apply to more than one species. A scientific name is assigned after careful research. A scientific name is the official name for each organism. It is made up of two parts, a genus name (written first) and a species name. Sometimes a third part, the subspecies name, is also used. The name is always in Latin because when this naming process started, most people everywhere knew Latin. It must be underlined or in italics when written. Often a scientific name tells you something about the species or someone who studied it. Scientific names help scientists to study organisms, especially when working with other scientists. In this booklet, the scientific name for each species is listed below the common name.

VOCABULARY

Vocabulary words are indicated in the text by **bold** lettering.

ANNELID—segmented worm, such as an earthworm or leech
ARTHROPOD—animal with an exoskeleton and jointed appendages (leg, antenna); examples - spider, tick, crayfish, centipede, millipede, insect
CARNIVORE—animal that receives nutrition by eating other animals
CLUTCH—a group of eggs in a nest
CONSTRICTOR—snake that coils around its prey to prevent the prey from breathing
CRUSTACEAN—**arthropod** that breathes with gills and has jaws, two pairs of antennae and two compound eyes; examples - crayfish, pill bug, water flea
HERBIVORE—an organism that feeds on plants
METAMORPHOSIS—a series of changes in body structures from egg to adult
MOLLUSK—a soft-bodied animal that may or may not have a shell; examples - snail, slug, mussel, clam
MUCUS—a slimy, protective lubricant secreted by glands
MUSK—a greasy secretion with a powerful odor produced by a gland
OMNIVORE—animal that receives nourishment from plants and animals
TERRESTRIAL—land based
TRANSFORM—to change from a larval to an adult form

REFERENCES

CONANT, R. 1975. *A FIELD GUIDE TO REPTILES AND AMPHIBIANS OF EASTERN AND CENTRAL NORTH AMERICA.* HOUGHTON MIFFLIN COMPANY, BOSTON. 429 PP.

FURNWEGER, K., ED. 1996. *AQUATICUS.* 26(1). JOHN G. SHEDD AQUARIUM, CHICAGO.

OLDFIELD, B. AND MORIARTY, J. J. 1994. *AMPHIBIANS AND REPTILES NATIVE TO MINNESOTA.* UNIVERSITY OF MINNESOTA PRESS, MINNEAPOLIS/LONDON. 237 PP.

SMITH, P. W. 1961. *THE AMPHIBIANS AND REPTILES OF ILLINOIS.* ILLINOIS NATURAL HISTORY SURVEY, URBANA, IL. 298 PP.

The Illinois Department of Natural Resources receives federal financial assistance and therefore must comply with federal anti-discrimination laws. In compliance with the Illinois Human Rights Act, Illinois Constitution, Title VI of the 1964 Civil Rights Act, Section 504 of the Rehabilitation Act of 1973 as amended, and the U.S. Constitution, the Illinois Department of Natural Resources does not discriminate on the basis of race, color, sex, national origin, age or disability. If you believe you have been discriminated against in any program, activity or facility, please contact the Equal Employment Opportunity Officer, Department of Natural Resources, 524 S. Second St., Springfield, IL 62701-1787, (217)782-7616 or the Office of Human Resources, U.S. Fish & Wildlife Service, Washington, DC 20240.

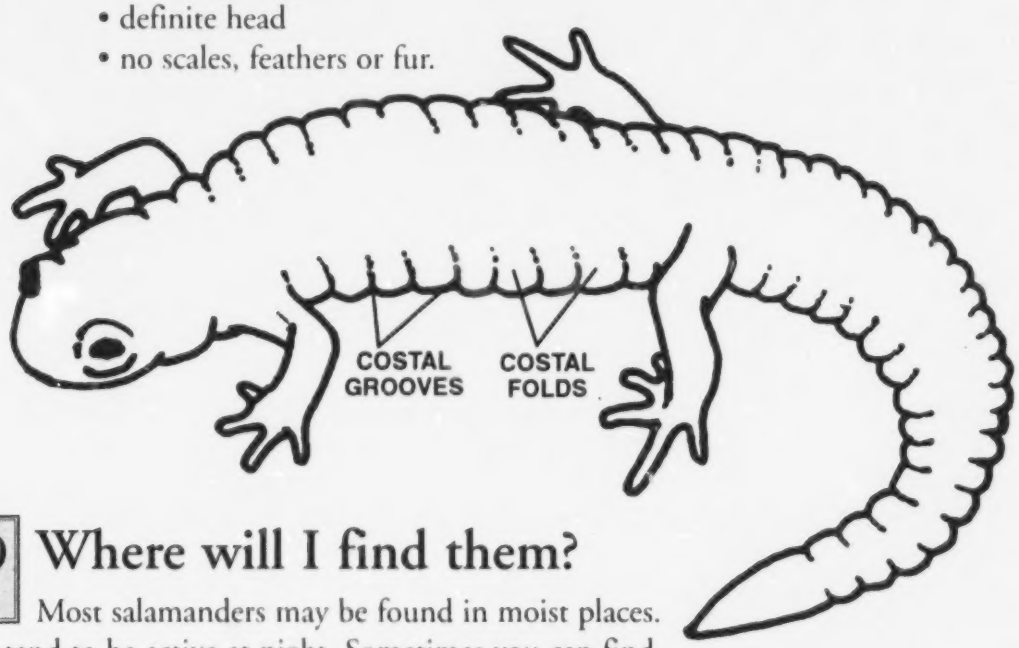
PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS, JIM EDGAR, GOVERNOR 20M-2/97.

SALAMANDERS

How will I know?

Salamander adults have the following traits:

- 4 legs (most species)
- relatively long tail
- definite head
- no scales, feathers or fur.



Where will I find them?

Most salamanders may be found in moist places. They tend to be active at night. Sometimes you can find them roaming on land in the spring or fall after a rain. In the spring you might see them at ponds when they are ready to reproduce.

What else should I know about them?

Salamanders have **mucous** glands in the skin. The **mucous** keeps the skin moist and slick. These animals can breathe through their skin. Because they are slick, predators may have a hard time catching them.

Salamander eggs are laid in water and covered with a jellylike substance. Eggs hatch to larvae that breathe with gills. As they grow, larvae develop legs, and in most cases, lungs. Although a few remain entirely aquatic, most adults leave the water and live on land.

Salamanders are **carnivores**. They are also a food source for many other organisms.

Eastern Tiger Salamander

Ambystoma tigrinum tigrinum
(am-BIS-toe-muh tie-GRIN-um tie-GRIN-um)

Is it near my house?

statewide in Illinois

What does it look like?

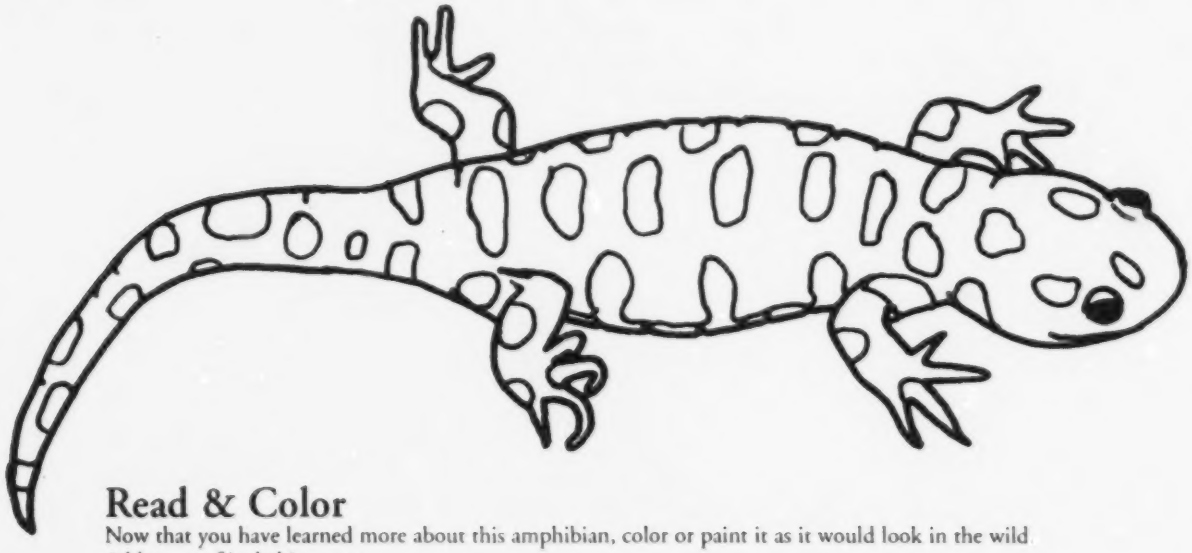
A large (7-8.25 inches) blue-black or brownish-black salamander with irregular yellow blotches. The belly is olive-yellow with dark streaks.

What are its habits?

The tiger salamander is active at night and spends most of its time underground. It may live in disturbed areas like cities and farm fields. It eats about anything that it can catch, especially worms and insects.

What about reproduction?

Breeding occurs in early spring. Clusters of 25-100 eggs are attached to objects on pond bottoms. Eggs hatch in about three weeks. Larvae **transform** in July.



Read & Color

Now that you have learned more about this amphibian, color or paint it as it would look in the wild. Add some of its habitat, too.

MUDPUPPY

Necturus maculosus
(NECK-tour-us MACK-u-low-sus)

Is it near my house?

statewide in Illinois

What does it look like?

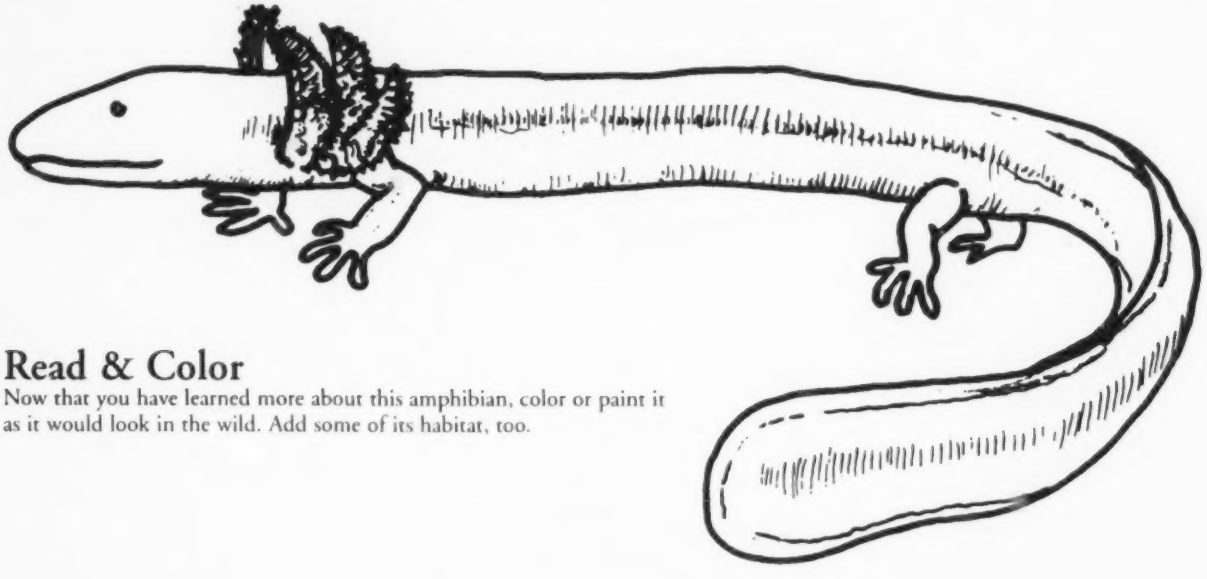
This large (8-13 inches), aquatic salamander has permanent, bushy, external gills. Its head is flat. The body is gray with scattered black blotches.

What are its habits?

Also called the waterdog, this animal lives in lakes, lagoons, rivers and large creeks. It is sometimes caught by fishermen especially in debris around bridge supports. The mudpuppy is very slimy. It eats fishes, **arthropods**, **annelids** and **mollusks**.

What about reproduction?

A female lays about 100 eggs under rocks or logs in the water. Each egg is suspended in a jellylike sac. Eggs hatch after about two months.



Read & Color

Now that you have learned more about this amphibian, color or paint it as it would look in the wild. Add some of its habitat, too.

SMALL-MOUTHED SALAMANDER

Ambystoma texanum
(am-BIS-toe-muh tex-A-numb)

Is it near my house?

southern two-thirds of Illinois

What does it look like?

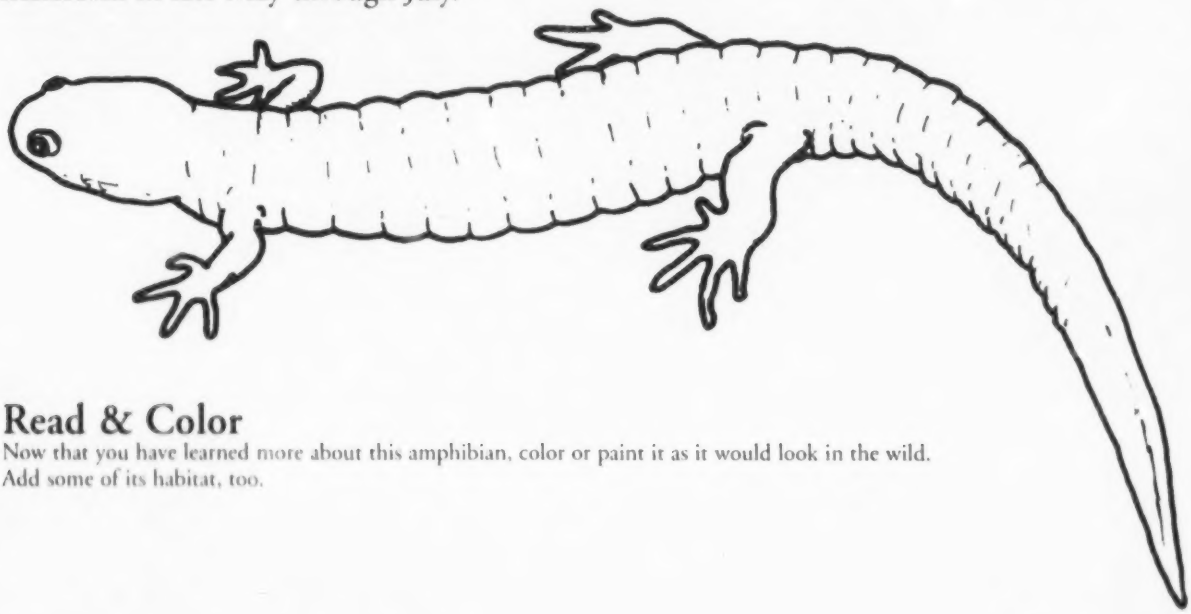
The small-mouthed is medium-sized (4.5-5.5 inches). It is gray, black or brown and often has patches of gray on the sides of its tail and body. The head is narrow, and the mouth is small.

What are its habits?

The small-mouthed may be found in woodlands, prairies, pastures and cultivated fields. It feeds on earthworms, slugs and **arthropods**. It is mainly active at night and tends to spend most of its time hidden under objects or in underground burrows.

What about reproduction?

Breeding occurs in the early spring. Masses containing 6-30 eggs are laid on vegetation in any standing water that can be found. Eggs hatch within a few days, and the larvae **transform** in late May through July.



Read & Color

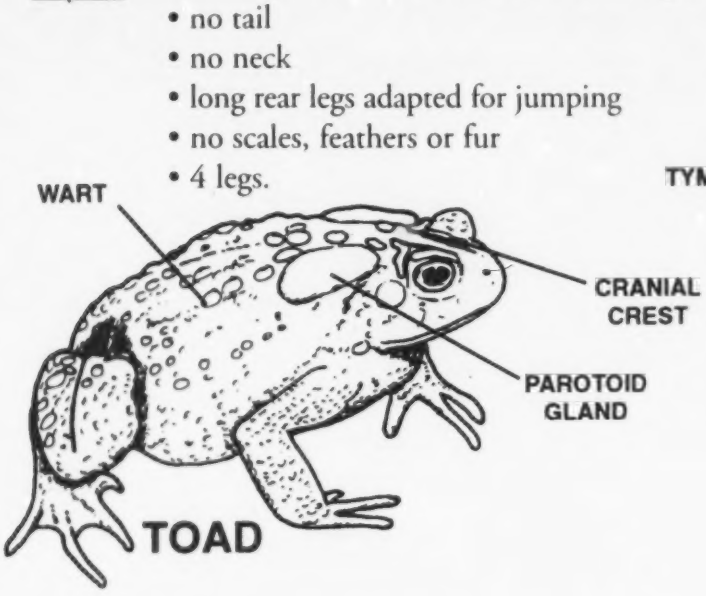
Now that you have learned more about this amphibian, color or paint it as it would look in the wild. Add some of its habitat, too.

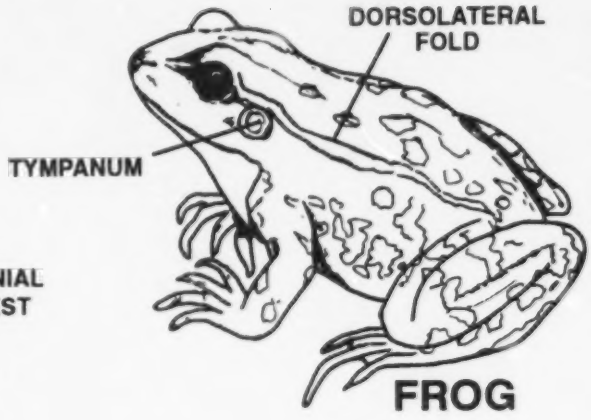
FROGS & TOADS

How will I know?

Adult frogs and toads have the following traits:

- no tail
- no neck
- long rear legs adapted for jumping
- no scales, feathers or fur
- 4 legs.





Where will I find them?

Frogs and toads live in wet places or are active when there is plenty of moisture in the air, like at night or after a rain. Some frogs are even found in trees! Toads can survive farther away from water than frogs. Breeding frogs and toads gather around ponds and other water bodies at night.

What else should I know about them?

Frogs use their skin and lungs to breathe. **Mucous** glands in their skin help to keep it moist and slick. This aids in breathing and escaping from predators. Because toads have drier skin, they do not use it as much for breathing.

Toads have many poison glands in their skin. When a predator starts to eat a toad, the poison oozes into the predator's mouth. Often the toad is dropped because the poison tasted nasty.

Frogs and toads return to water to lay their eggs. Eggs are covered with a jellylike substance. The eggs hatch to larvae (tadpoles) that breathe with gills. As they develop, the larvae grow legs and lose the gills. When fully developed they may leave the water.

Frogs and toads are **carnivores**. They are also a good food source for many predators. Most frogs and toads can change colors to some degree.

BLANCHARD'S CRICKET FROG

Acris crepitans blanchardi
(A-chris CREP-I-tans BLAN-chard-i)

Is it near my house?

statewide in Illinois but uncommon in the northern one-third of the state

What does it look like?

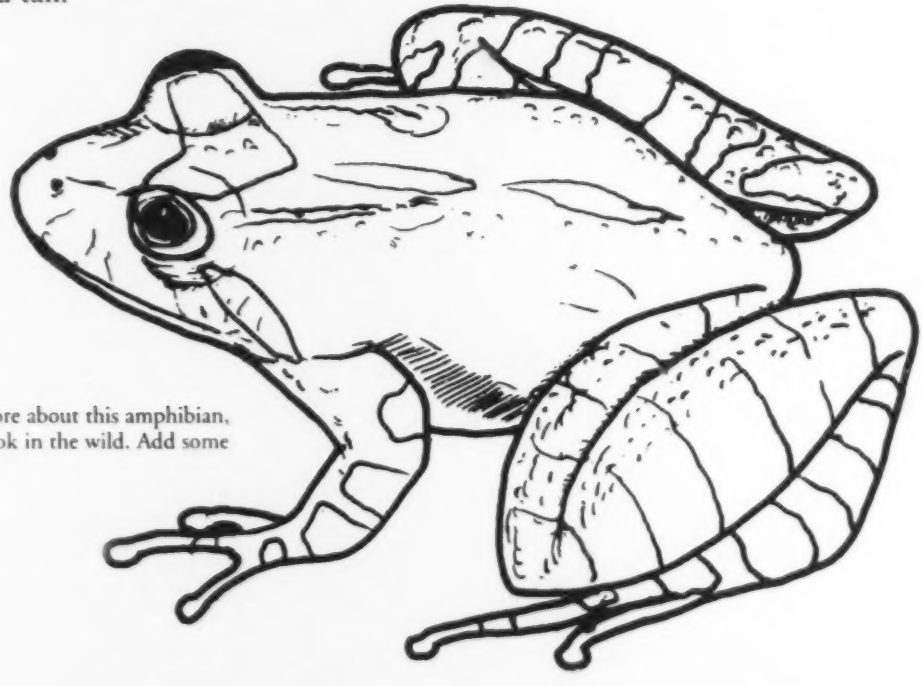
This small frog (.63-1.5 inches) has a tiny pad on the tip of each toe. The feet are webbed. A light line extends from each eye to the shoulder, and many light bars are on the nose. A dark triangle is between the eyes. The frog may be gray, brown, black, olive or tan.

What are its habits?

The cricket frog lives in aquatic and **terrrestrial** habitats but not in trees. It is fairly tolerant of cold and may be seen in the winter months if the weather is not too severe. It eats **arthropods**, particularly insects.

What about reproduction?

Breeding occurs from late April through summer. The male's call is a metallic "glick, glick, glick." Up to 200 eggs are laid in filmy packets on the water's surface. The tadpole has a black-tipped tail.



Read & Color

Now that you have learned more about this amphibian, color or paint it as it would look in the wild. Add some of its habitat, too.

BULLFROG

Rana catesbeiana
(RAN-uh KATES-bee-ah-nuh)

Is it near my house?

statewide in Illinois

What does it look like?

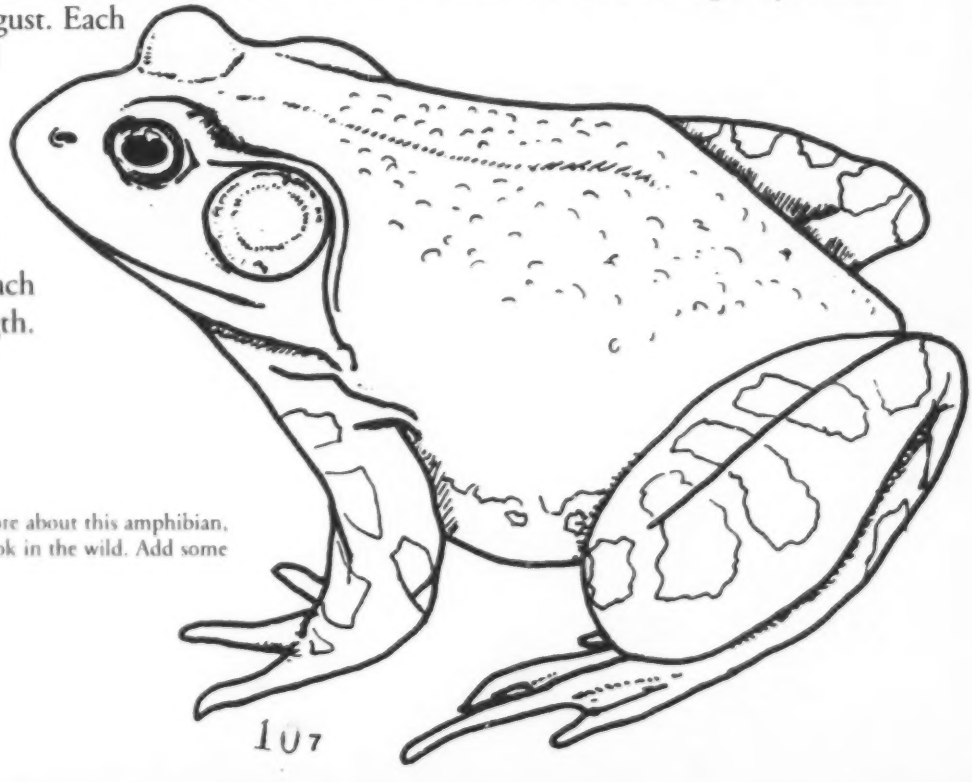
This large (3.5-6 inches) frog is easy to identify. It has no dorsolateral folds (see page 5) but does have short tympanic folds. Webbing on the feet extends to the toe tips. The frog may be olive, green or brown with dots or blotches. The tympanum (see page 5) is larger than the eye.

What are its habits?

The bullfrog may be found in lakes, ponds, rivers or creeks. An adult is solitary and wary during the day but easier to approach at night. A bullfrog eats almost anything that it can catch and swallow although **crustaceans** and insects make up the bulk of the diet.

What about reproduction?

The "jug-o-rum" and "br-wum" calls of the male announce the breeding season from late April through August. Each female may lay several thousand eggs. Hatching occurs in less than a week. Tadpoles **metamorphose** in their second year. Tadpoles may reach over six inches in length.



Read & Color

Now that you have learned more about this amphibian, color or paint it as it would look in the wild. Add some of its habitat, too.

American Toad

Bufo americanus

(BOO-foe uh-mare-i-CANE-us)

Is it near my house?

all but the southeastern portion of Illinois

What does it look like?

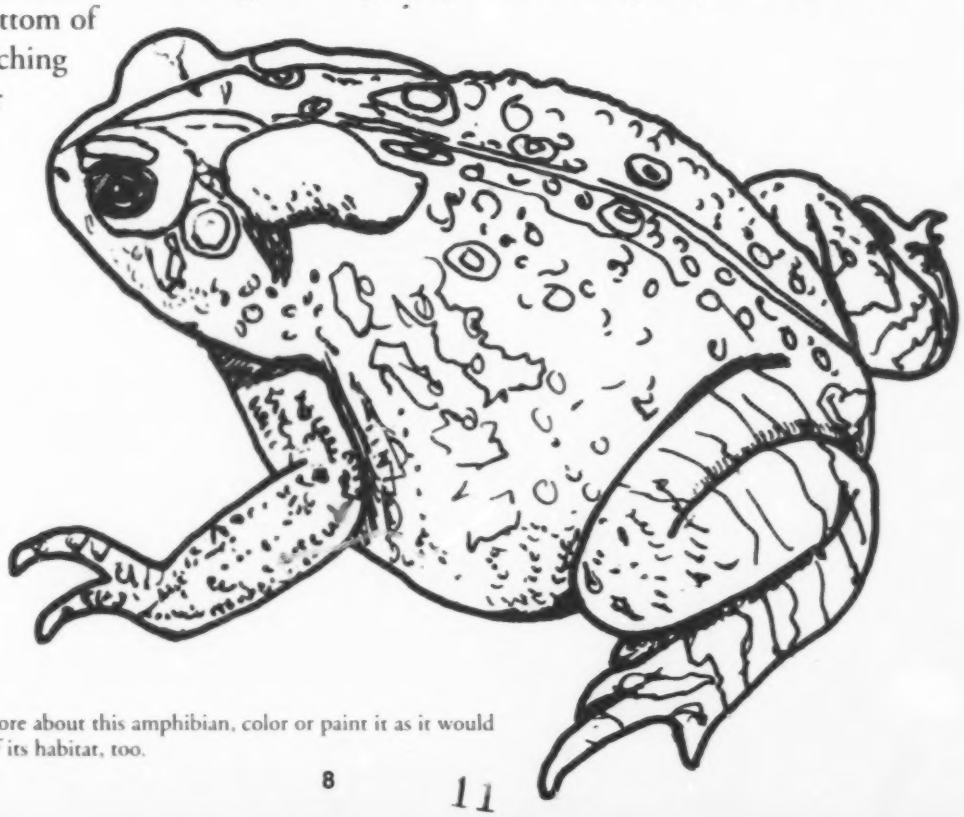
This large toad (2-3.5 inches) has long parotoid glands (see page 5). Its belly is dark spotted. Dark spots on the back include more than one wart (see page 5) in about half of the individuals.

What are its habits?

Gardens, lawns, woods and fields are all habitats for this animal. The American toad hides in soil or shrubbery during the day. It is active at night, feeding on insects and worms.

What about reproduction?

The breeding season peaks in mid-April. The male calls with a high, musical trill. Each female may lay several thousand eggs in long strings. These strings may extend for several feet along the bottom of a pond or ditch. Hatching occurs one week later with **metamorphosis** in early June.



Read & Color

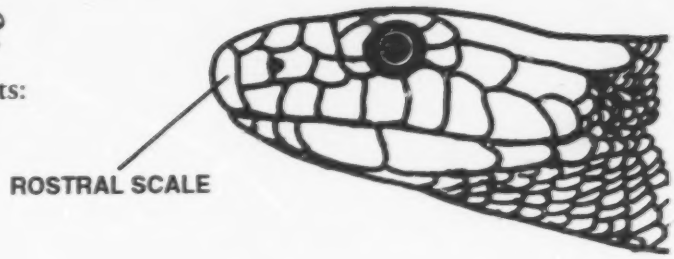
Now that you have learned more about this amphibian, color or paint it as it would look in the wild. Add some of its habitat, too.

SNAKES

How will I know?

Snakes have the following traits:

- no legs
- no ear openings
- no eyelids
- scales.



Where will I find them?

Snakes can be found in many habitats. Some live on land and some live in water. Some can be found in trees. Some tend to stay hidden under rocks or logs.

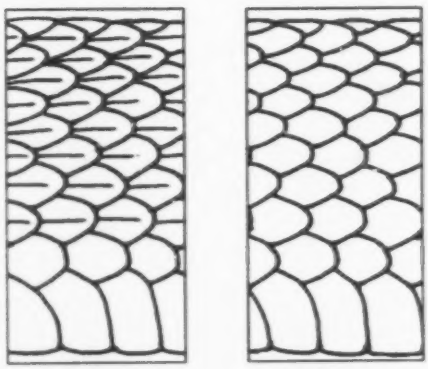
What else should I know about them?

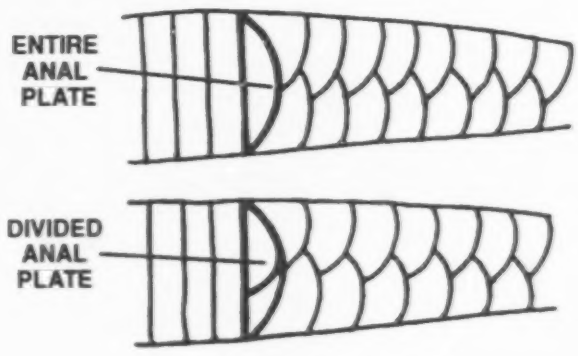
Snakes do not see or hear well. They rely on their other senses to help them find prey. When a snake sticks out its forked tongue, it is picking up chemicals from the environment.

Snakes shed their skin as they grow. When a snake is getting ready to shed, its eye will appear milky. Snakes have no eyelid, but a clear scale covers and protects the eye. This scale is shed along with the rest of the skin. Snakes tend to be irritable before they shed their skin.

Snakes are **carnivores**. They can eat food larger than their head because their jaws are adjustable. Some snakes strike their prey while others are **constrictors**.

Snakes lay eggs covered by a leathery shell. Often the eggs are found in rotten wood or other dead vegetation. A few snakes give birth to fully developed young.





EASTERN HOGNOSE SNAKE

Heterodon platirhinos

(HEH-ter-oh-don plat-e-RHINE-ose)

Is it near my house?

statewide in Illinois

What does it look like?

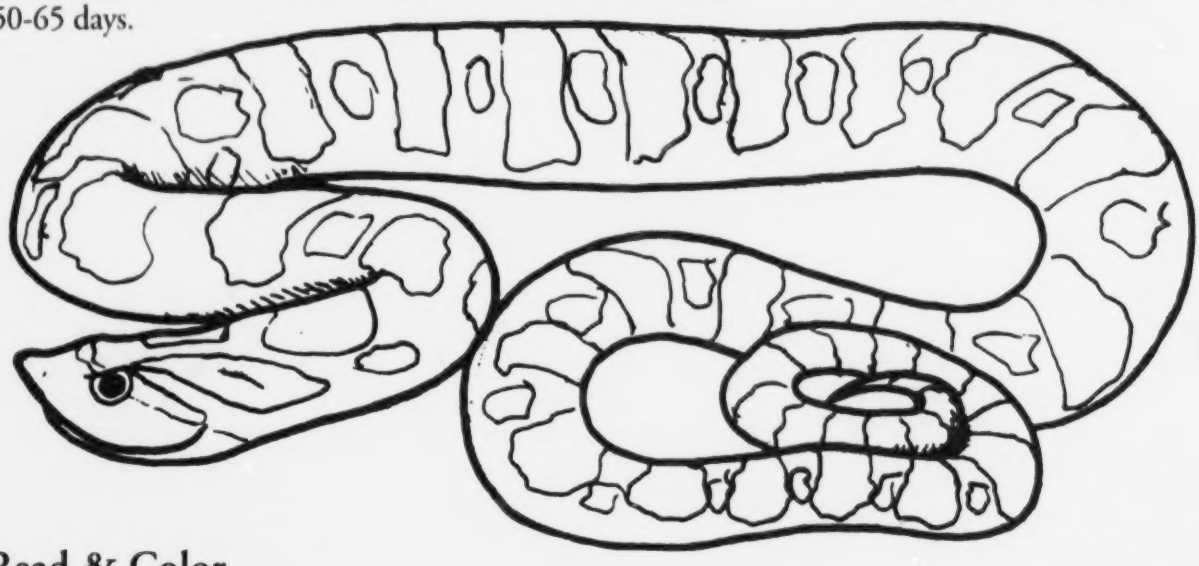
This medium-sized snake (20-33 inches) has a large shovel-like plate on the tip of its nose. Its belly may be light or dark, but the underside of the tail is always light. The scales are keeled (see page 9). The body has dark spots on a gray, tan or brown background or may be olive, brown or black without spots.

What are its habits?

The hognose snake bluffs predators by spreading its head and neck and hissing. It is sometimes called the "hissing adder" or "puff adder". It may play dead, too. When disturbed, it deposits large amounts of foul-smelling waste material. Hognose snakes primarily eat toads and frogs. This species seems to be immune to toads' poisonous secretions.

What about reproduction?

The long eggs of this snake are sometimes found under rocks, with most reproduction happening from mid-April through May. **Clutch** size averages 15-25 with eggs developing in 50-65 days.



Read & Color

Now that you have learned more about this reptile, color or paint it as it would look in the wild. Add some of its habitat, too.

Midland Brown Snake

Storeria dekayi wrightorum
(sto-RARE-e-uh dee-KAY-eye rye-TORE-um)

Is it near my house?

statewide in Illinois

What does it look like?

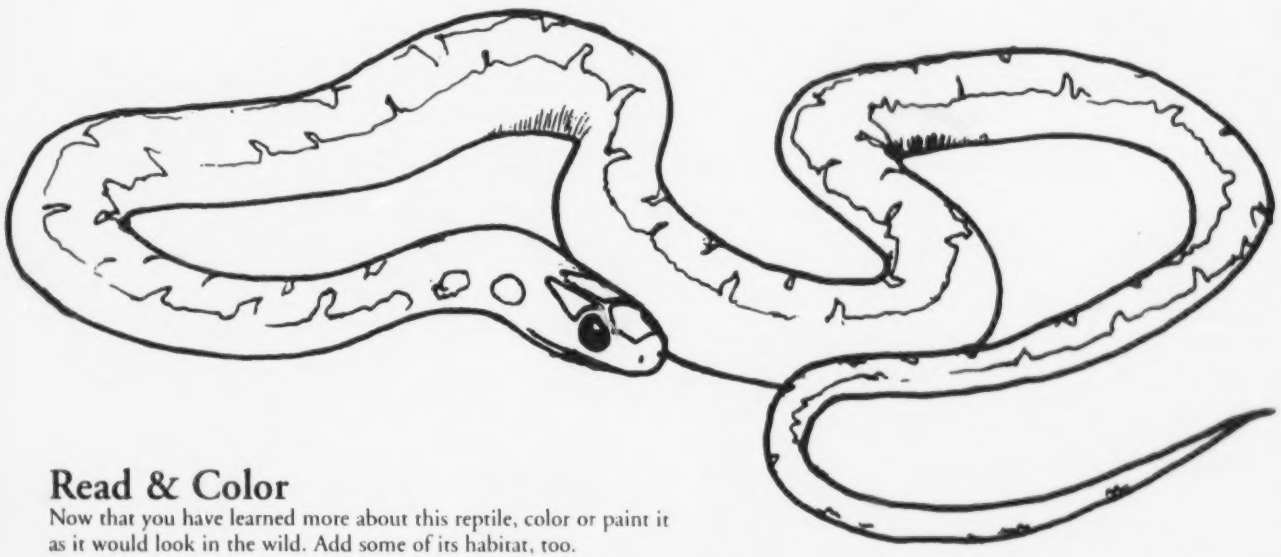
This small snake (9-13 inches) has 17 rows of strongly keeled scales (see page 9) and a divided anal plate (see page 9). It is gray or light brown, usually with a faint light stripe along the back. The stripe may have a border of dark spots or dashes. There is a dark spot on either side of the neck behind the head and below each eye.

What are its habits?

Forest, prairie and floodplain habitats are home for this snake. It is often encountered under rocks and rubbish. Brown snakes primarily eat earthworms, slugs and insect larvae. They may discharge a mild **musk** when frightened. Brown snakes are eaten by many predators.

What about reproduction?

Breeding occurs in the spring. During late summer, the female gives birth to an average litter of 14. Newborn snakes must escape from a thin membrane that encloses them.



Read & Color

Now that you have learned more about this reptile, color or paint it as it would look in the wild. Add some of its habitat, too.

BLACK RAT SNAKE

Elaphe obsoleta obsoleta
(e-LAUGH-e ob-so-LEET-uh ob-so-LEET-uh)

Is it near my house?

central to southern Illinois

What does it look like?

Black rat snakes are large (42-72 inches) and heavy-bodied. The scales are weakly keeled (see page 9), and the anal plate is divided (see page 9). The head of a black rat snake is wider than its neck. These snakes are dark with white spots between dark blotches on the back. The belly is dark gray or brown with dark specks.

What are its habits?

An excellent climber, the movements of this snake are slow and deliberate. Disturbed individuals often "freeze" in position. If bothered it may raise its head, vibrate the tip of its tail and lunge. This snake eats birds and small mammals. It is a **constrictor.**

What about reproduction?

The eggs are often placed in rotten wood. An average **clutch** would contain 10-14 eggs. Eggs tend to stick together in the nest. Hatchlings emerge in late August or early September.

Read & Color

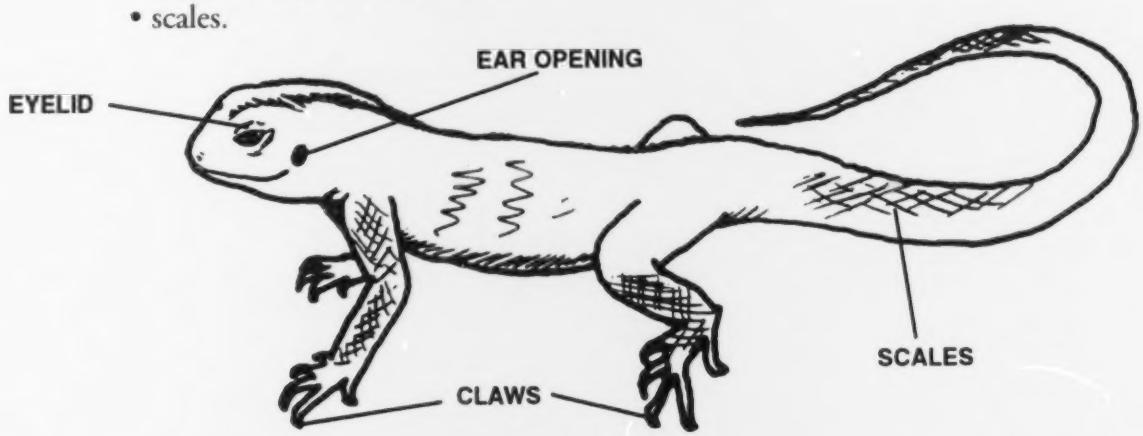
Now that you have learned more about this reptile, color or paint it as it would look in the wild. Add some of its habitat, too.

LIZARDS

How will I know?

Lizards have the following traits:

- 4 legs (most species)
- claws (most species)
- eyelids
- ear openings (most species)
- scales.



Where will I find them?

Lizards are land-based and may be seen sunning on logs or rocks. They climb trees, too. They are secretive and shy. Lizards run very fast to escape danger and may even drop part of their tail. The tail will grow back but will be shorter than the original.

What else should I know about them?

Lizards are covered with dry scales. They shed their skin in patches as they grow, sometimes eating it to recover nutrients. Most lizards can change colors to some degree. Breeding male lizards are frequently very colorful.

Shelled eggs are laid under bark, rocks or in rotten logs. The eggs may or may not be guarded by an adult.

These animals are **carnivores** with insects making up a large portion of the diet.

Like snakes, lizards use their tongue to pick up chemicals from the environment.

NORTHERN FENCE LIZARD

Sceloporus undulatus hyacinthinus
(skel-AW-pore-us un-dew-LATE-us high-uh-sin-THIN-us)

Is it near my house?

southern one-third of Illinois

What does it look like?

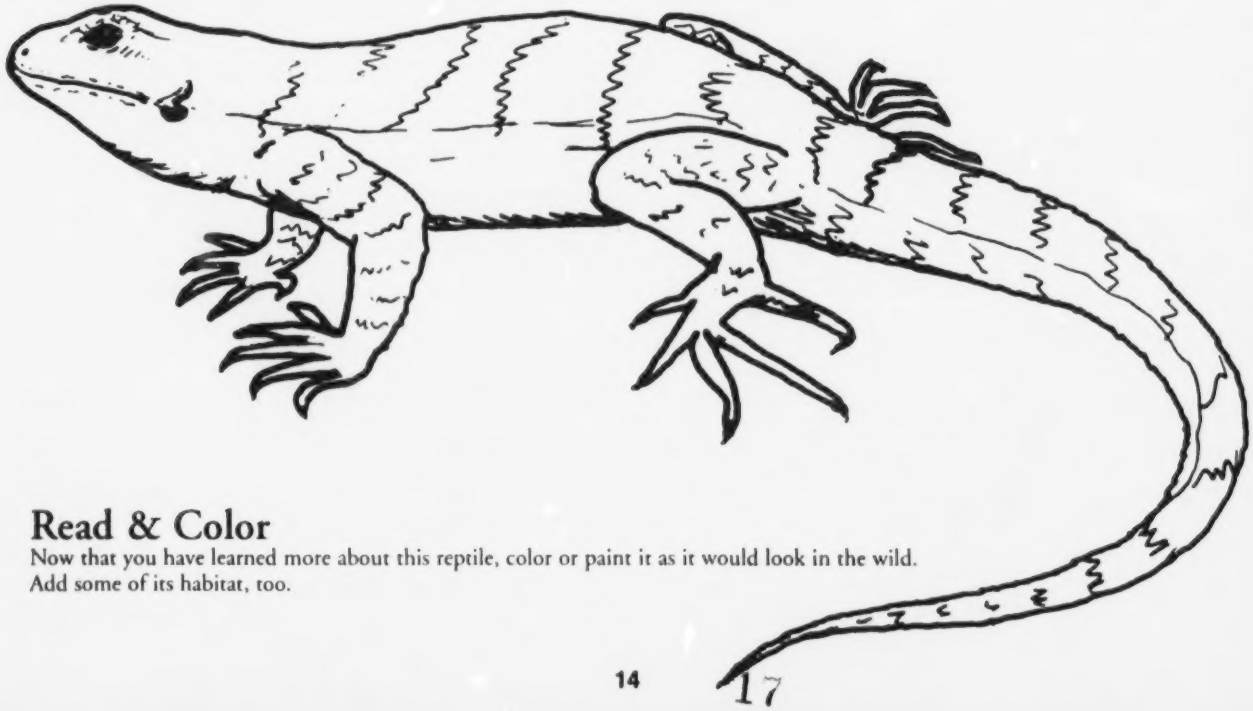
The fence lizard (4-7.25 inches) is covered with rough, overlapping scales. Each scale has a spine that points toward the tail. The heavy body is gray with 5-8 brown or black bands.

What are its habits?

This lizard is found in open, dry wooded areas such as rocky hillsides or woodlots. You may see it sunning itself on fallen trees, stumps or rail fences. It is a good climber. Sometimes the lizard is seen doing "push-ups" with its front legs. It eats insects and other **arthropods**.

What about reproduction?

The fence lizard breeds in late April and early May. The female deposits eggs in rotten logs or stumps. Hatchlings may be found by August.



Read & Color

Now that you have learned more about this reptile, color or paint it as it would look in the wild. Add some of its habitat, too.

Western Slender Glass Lizard

Ophisaurus attenuatus attenuatus
(oh-fee-SAUR-us uh-TEN-you-ate-us uh-TEN-you-ate-us)

Is it near my house?

statewide but not common

What does it look like?

This is a tan, limbless lizard that is 22-42 inches long and has a distinct dark stripe along the middle of its back. It may have white stripes along its side.

What are its habits?

The animal is **terrestrial** and prefers areas with loose soil and sand where it may be found under rocks, logs and other objects. Its tail is very fragile and breaks easily. It is a **carnivore**, eating animals such as lizards, snakes and crickets.

What about reproduction?

Very little is known about the reproduction of this species.

Read & Color

Now that you have learned more about this reptile, color or paint it as it would look in the wild. Add some of its habitat, too.

Five-lined Skink

Eumeces fasciatus
(you-ME-sees fas-e-AH-tus)

Is it near my house?

southern half of Illinois

What does it look like?

The animal is 5-8 inches long. Females and young have five long, light stripes on a dark background. Mature males are tan, gray or bronze with red cheeks. Young have blue tails.

What are its habits?

Often seen on sunny days around abandoned buildings, rotten logs, dead trees or rock outcrops, this skink can move very quickly if disturbed. It may lose its tail to distract a predator. **Arthropods**, earthworms and **mollusks** make up a large part of the diet. The five-lined skink will bite if you try to pick it up.

What about reproduction?

Each female lays about nine eggs in rotten logs or stumps during July. The eggs are guarded by the female.

Read & Color

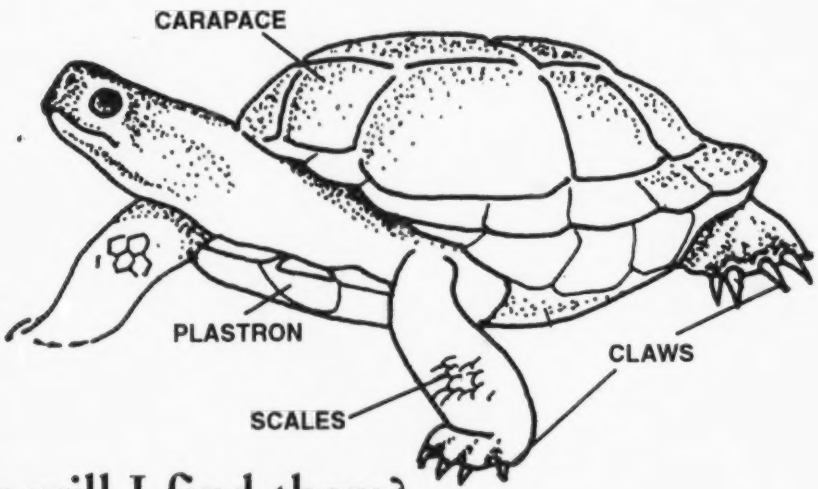
Now that you have learned more about this reptile, color or paint it as it would look in the wild. Add some of its habitat, too.

TURTLES

How will I know?

Turtles have the following traits:

- 4 legs
- tail
- claws
- no teeth
- scales and/or plates
- shell.



Where will I find them?

Turtles may be found in many habitats from water to forests to prairies to urban areas. Aquatic turtles are often seen sunning on rocks or logs in the morning hours. Turtles are most active during the day.

What else should I know about them?

The shell of a turtle has an upper portion called the carapace and a lower portion called the plastron. The two parts are joined by a bridge. The shell is arranged to allow a turtle to draw in its head, tail and legs, although most turtles cannot completely close the shell. Some turtles have a leathery shell instead of a hard one.

Females dig a hole on land for the eggs. Once the eggs are laid, the hole is filled with dirt. When the turtles hatch, they must dig their way to the surface.

Turtles may be **herbivores**, **carnivores** or **omnivores**. The adults, hatchlings and eggs are all food sources for several predators.

Common Snapping Turtle

Chelydra serpentina
(chuh-LIH-druh sir-pen-TEE-nuh)

Is it near my house?

statewide in Illinois

What does it look like?

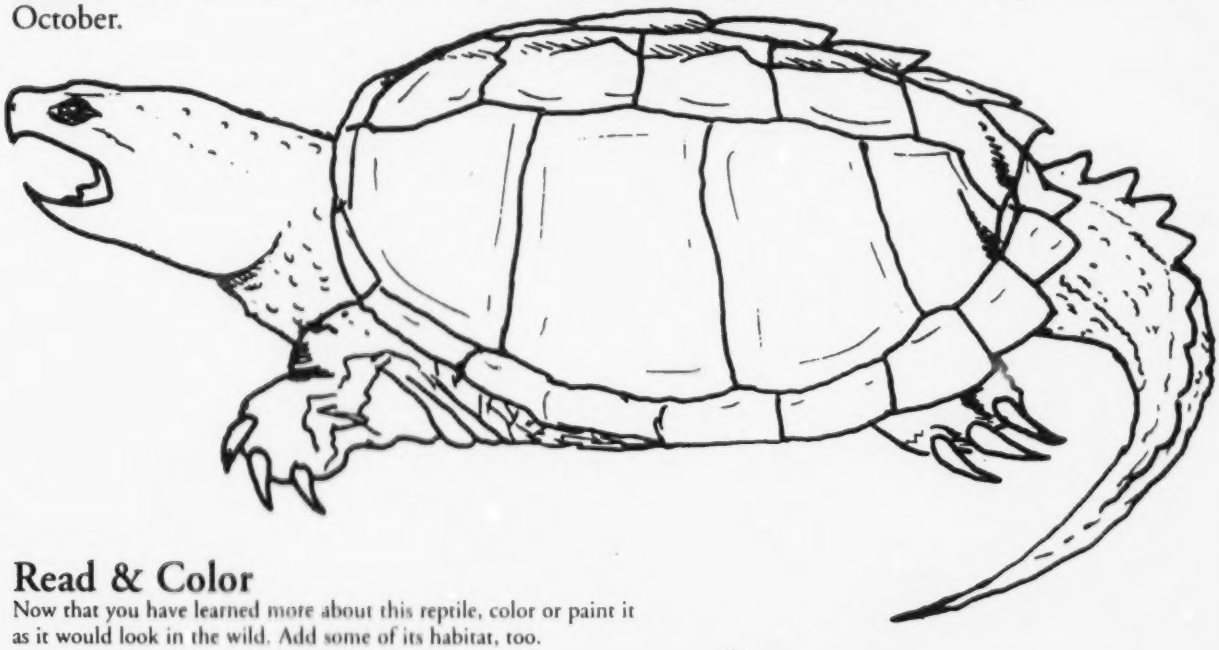
This large turtle (8-12 inches, 10-35 pounds) has an enormous head, thick legs and a relatively long tail. The carapace has three keels that tend to be covered with algae in adults. The plastron is too small to cover the head, tail and legs. Young animals are black with some gray or olive spots. Adults are olive, gray or black.

What are its habits?

Found in all types of water bodies, the snapping turtle may also migrate on land. It is slow-moving and awkward both in and out of the water. In water, it spends much time on the bottom waiting for prey. This turtle is a scavenger and predator and will eat most anything.

What about reproduction?

Twenty to thirty eggs are laid in June. Hatchlings may be found in September and October.



Read & Color

Now that you have learned more about this reptile, color or paint it as it would look in the wild. Add some of its habitat, too.

21

STINKPOT

Sternotherus odoratus
(stern-AH-ther-us oh-door-A-tus)

Is it near my house?

statewide in Illinois

What does it look like?

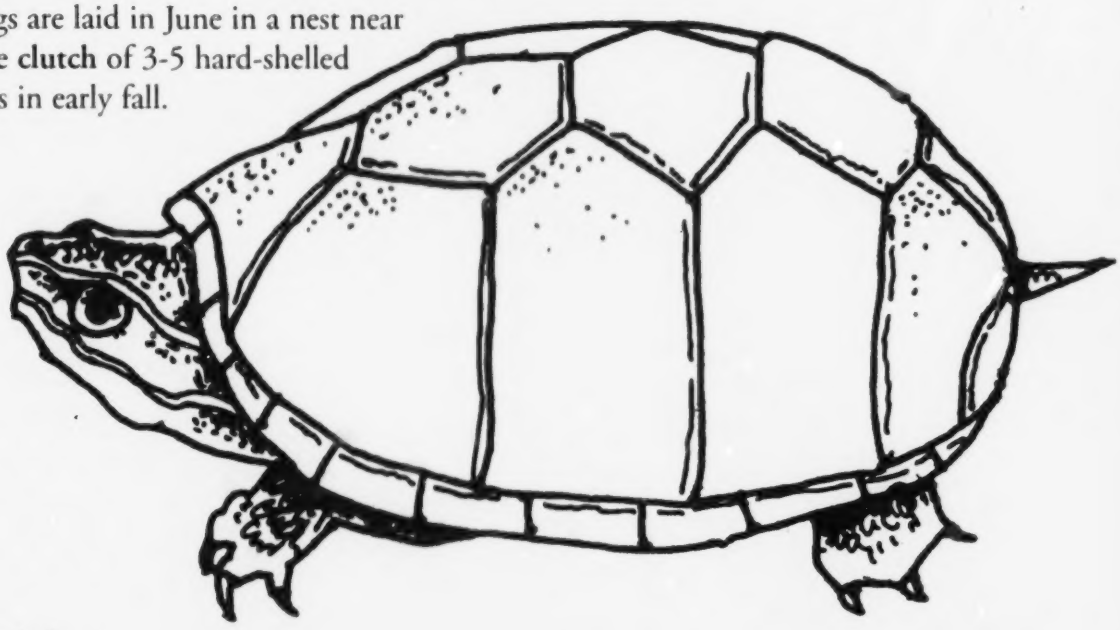
This small (3.25-4.5 inches) turtle has an oval-shaped, high-domed shell. The front of the plastron is much shorter than the back. A large head, nose that projects beyond the mouth, pair of chin barbels and pair of yellow stripes on each side of the head are also features. The carapace may be black, olive or brown.

What are its habits?

The stinkpot is aquatic and swims well, although it mainly crawls on the bottom of water bodies. Its name comes from the unpleasant **musk** it may release from its scent glands. This ill-tempered animal is a **carnivore**, eating mainly **arthropods**, fish, worms and **mollusks**.

What about reproduction?

Eggs are laid in June in a nest near a pond. The **clutch** of 3-5 hard-shelled eggs hatches in early fall.



Read & Color

Now that you have learned more about this reptile, color or paint it as it would look in the wild. Add some of its habitat, too.

Eastern Spiny Softshell

Apalone spinifera spinifera
(ap-uh-LONE spin-IF-er-uh spin-IF-er-uh)

Is it near my house?

statewide in Illinois

What does it look like?

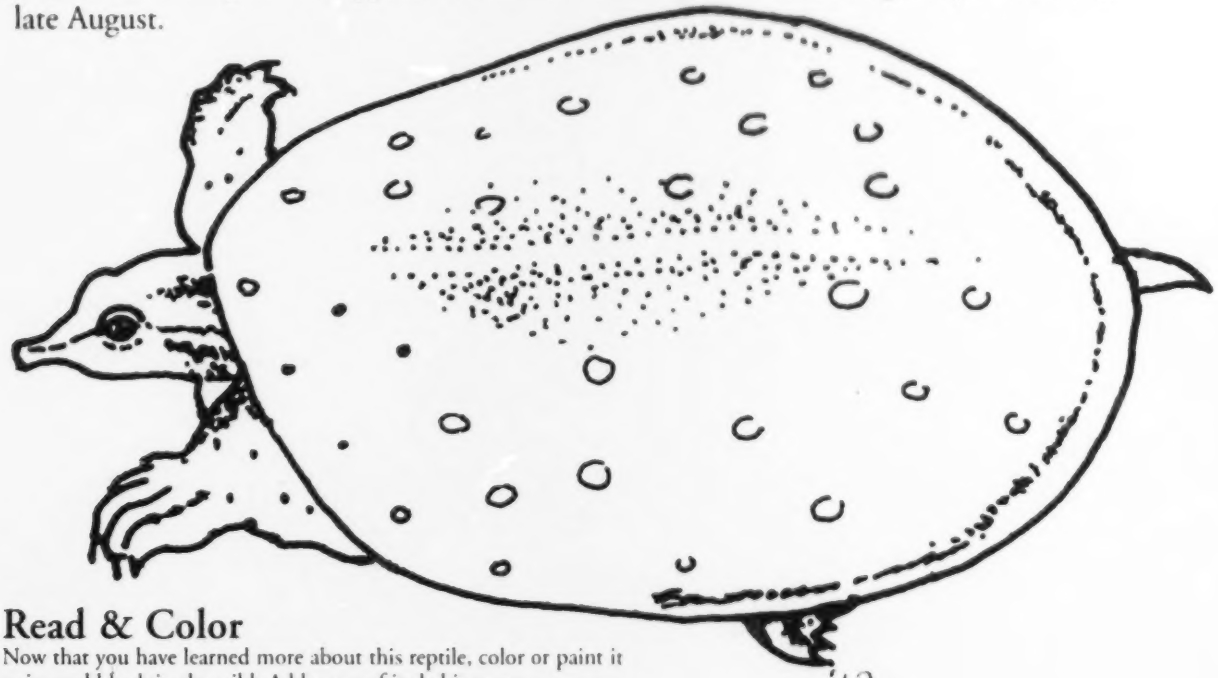
The softshell is a large (females 7-17 inches, males 5-9.25 inches), aquatic turtle with a tan leathery carapace lined with bumps. Each side of the head is dark with a light stripe behind the eye and a light line behind the jaw. The neck and legs are olive with dark mottling.

What are its habits?

The softshell turtle may be found basking on sandbars, buried in sand at a stream's edge or floating at the surface. It is basically a river turtle but may be found in quiet bodies of water where sandbars and mudbars are present. This carnivore will readily bite if disturbed. It may stay underwater for long periods of time.

What about reproduction?

An average of 18 eggs are buried in a nest in June. Hatchlings may be seen by late August.

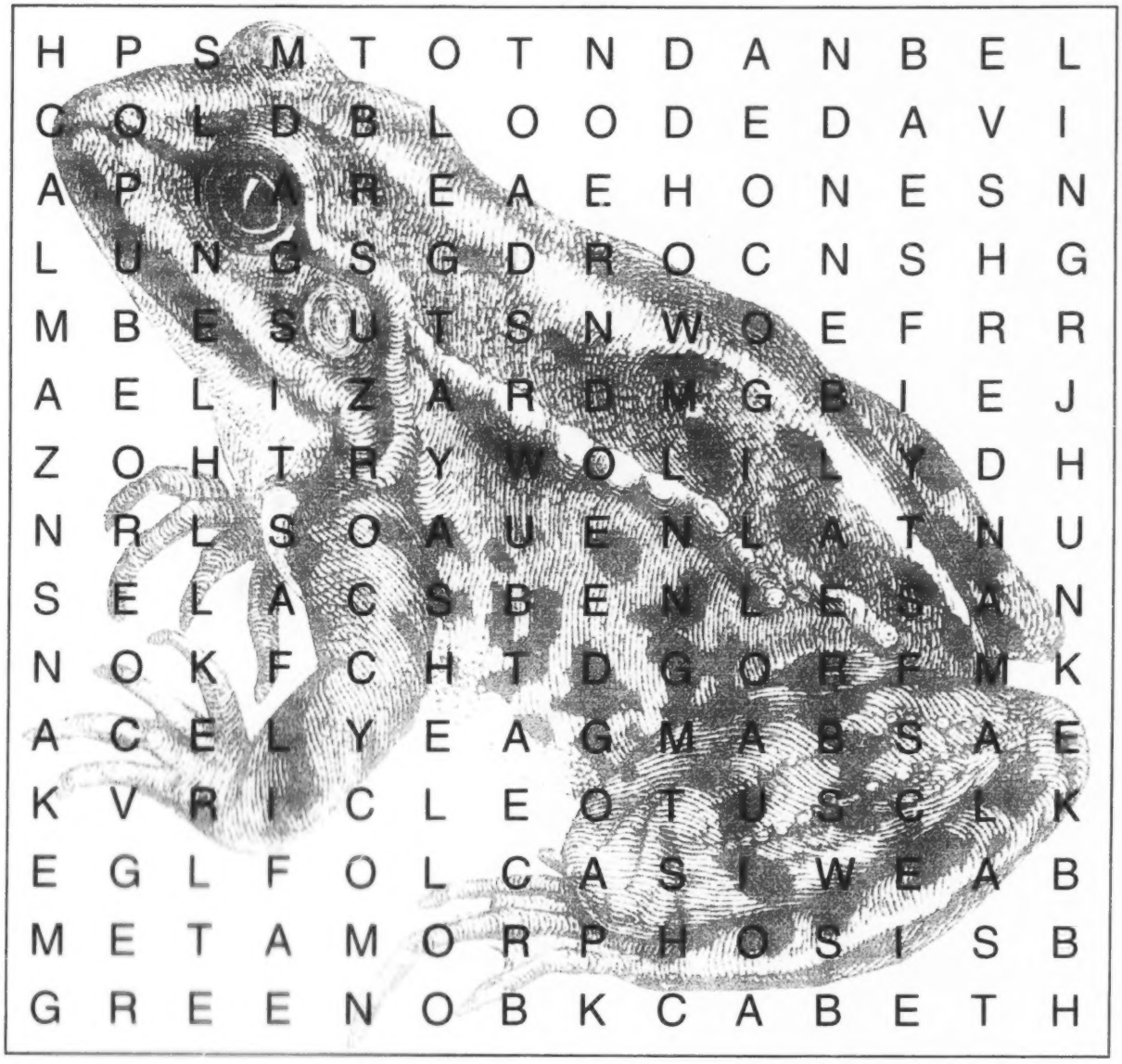


Read & Color

Now that you have learned more about this reptile, color or paint it as it would look in the wild. Add some of its habitat, too.

23

WORDS ABOUT REPTILES AND AMPHIBIANS

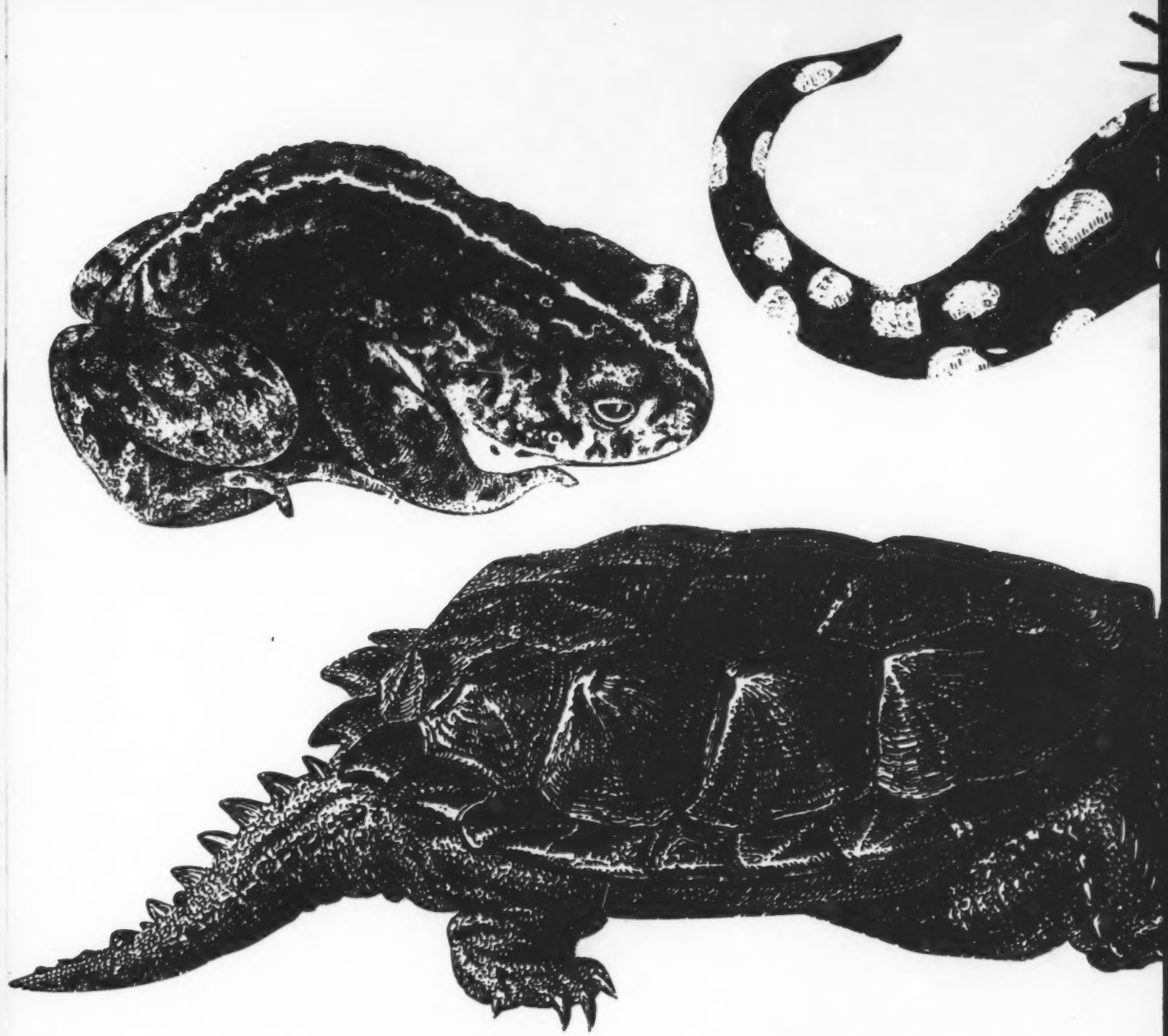


H P S M T O T N D A N B E L
C O L D B L O O D E D A V I
A P I A R E A E H O N E S N
L U N G S G D R O C N S H G
M B E S U T S N W O E F R R
A E L I Z A R D M G B I E J
Z O H T R Y W O L I L Y D H
N R L S O A U E N L A T N U
S E L A C S B E N L E S A N
N O K F C H T D G O R F M K
A C E L Y E A G M A B S A E
K V R I C L E O T U S C L K
E G L F O L C A S I W E A B
M E T A M O R P H O S I S B
G R E E N O B K C A B E T H

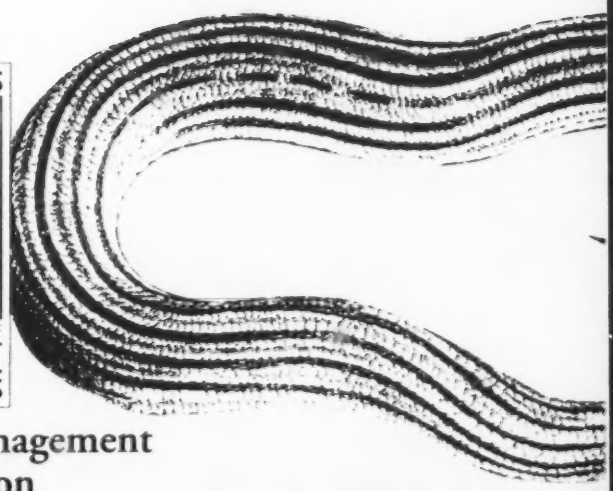
FIND THE FOLLOWING WORDS IN THIS PUZZLE.

BACKBONE	COLD-BLOODED	EGG-LAYER
FROG	GILL	LIZARD
LUNGS	METAMORPHOSIS	PLASTRON
SALAMANDER	SCALES	SHELL
SNAKE	TOAD	VENOMOUS

BEST COPY AVAILABLE



ILLINOIS
DEPARTMENT OF
NATURAL
RESOURCES



Office of Land Management
and Education
Division of Education

BEST COPY AVAILABLE